

REMARKS

I. Claim Amendments

Claim 1 is amended herein to specify that the optical test system further provides “an output device for reporting the retrieved latch data in a format that enables analysis of the device under test to determine the functionality of the device under test.”

Similarly, claim 8 is amended to include analyzing data relayed from an integrated circuit to an output device to determine the functioning of a device under test.

Claims 13 through 21 are canceled.

II. Rejection of claims 1-10 and 16-21 under 35 U.S.C. § 103

Claims 1-10 and 16-21 stand rejected under 35 U.S.C. § 103 as being unpatentable over Rao (U.S. Pat. No. 5,812,708) and Paniccia (U.S. Pat. No. 6,052,498).

A. Claims 1-10

Independent claim 1 is amended herein to include “an output device for reporting the retrieved latch data in a format that enables analysis of the device under test to determine the functionality of the device under test.” Claim 8, also an independent claim, now includes a method step of “analyzing the relayed data to determine the functioning of the device under test.” Further, claim 8 provides that the data is relayed from the integrated circuit to an output device.

With respect to claim 1, Rao neither involves nor suggests providing an output device for reporting data latched in the device under test in a format that enables analysis of the device, such as an integrated circuit, for example. More specifically, Rao does not suggest or provide any motivation for using light directed on a photosensitive target of a device under test to cause latching of data into said device under test, retrieving the latched data, and reporting that data via an output device in a format enabling analysis of the device under test to determine the functioning of the device. Instead, Rao teaches the use of laser pulses transmitted through a back side of a semiconductor to generate clock signals. See Rao, abstract; see also Rao, col. 3, lines 28-32.

Similarly, Rao neither provides nor suggests analyzing latched data relayed from an integrated circuit to an output device to determine the functioning of a device under test, as provided for in amended claim 8. As Rao is concerned primarily with clock signal generation, analysis of data latched within an integrated circuit to determining the functioning of the device under test is neither considered nor suggested.

Paniccia also does not involve analyzing a device under test, such as an integrated circuit. Instead, as recognized by the Examiner, Paniccia generally involves an optical input/output bus configured to transfer data among one or more integrated circuits. See Paniccia, abstract; see also Paniccia, col. 5, lines 38-44. This bus is distinguished from amended claim 1 of the present invention, as Paniccia neither discloses nor suggests an output device for reporting retrieved data latched by light in a format enabling analysis of the device under test to determine the functionality of the device under test, as provided for in claim 1. No such output device, or analysis of a device under test, is considered or made obvious by Paniccia.

Similarly with respect to claim 8, Paniccia does not disclose analyzing latched data that has been relayed from an integrated circuit to an output device in order to determine the functioning of the device under test. Such a testing function is not discussed in Paniccia, which is concerned primarily with transporting high-speed functional signals within or among one or more integrated circuits.

Thus, the Assignee respectfully contends that, for at least the reasons discussed above, neither Rao nor Paniccia, alone or in combination, disclose or suggest the inventions of claims 1 and 8 as amended herein. As such, claims 1 and 8 are believed patentable under 35 U.S.C. § 103 over Rao and Paniccia, and in form for allowance, and such indication is respectfully requested.

In addition, claims 2-7 depend from and include all of the limitations of claim 1, and claims 9 and 10 depend from and include all of the limitations of claim 8. Thus, for at least the same reasons discussed above with regard to independent claims 1 and 8, it is believed that claims 2-7, 9 and 10 are in form for allowance, and such indication is respectfully requested.

Application No. 09/746,618
Amt. dated November 10, 2004
Reply to Office action of July 12, 2003

B. Claims 16-21

Claims 16 through 21 have been canceled, rendering the rejection moot as it pertains to these claims. The Assignee reserves the right to introduce the claims in a divisional or continuation application.

III. Rejection of Claims 13-15 under 35 U.S.C. § 103

Claims 13-15 are rejected under 35 U.S.C. § 103 as being unpatentable over Rao and Paniccia as applied to claims 1-10 and 16-21, and further in view of Waters et al. (U.S. Pat. No. 4,627,731) and Lackie (U.S. Pat. No. 5,152,962).

Claims 13-15 have been canceled, rendering the rejection moot as it pertains to these claims. The Assignee reserves the right to introduce the claims in a divisional or continuation application.

IV. Indication of allowable subject matter in claims 11 and 12

The Examiner is again thanked for his indication that claims 11 and 12 contain allowable subject matter in their current form.

VI. Conclusion

For at least the various reasons discussed herein, it is believed that claims 1-12 are in form for allowance, and such indication is respectfully requested.

A petition for a one-month extension of time to respond to the July 12, 2004 Office action is hereby requested, thereby extending the due date for this response from October 12, 2004, to November 12, 2004. A check in the amount of \$110.00 for the one-month extension fee is enclosed. It is believed no further fees are due with respect to filing of this amendment; however, if any application processing fees are required, the Examiner is hereby authorized to charge deposit account number 04-1415 accordingly.

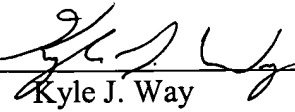
The Assignee respectfully requests that a timely Notice of Allowance be issued in this case.

Application No. 09/746,618
Amt. dated November 10, 2004
Reply to Office action of July 12, 2003

Respectfully submitted,

DORSEY & WHITNEY LLP

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By 

Kyle J. Way
Attorney Reg. No. 45,549
DORSEY & WHITNEY LLP
Customer No. 20686
PH: (303) 629-3400